CI/SfB (56.3)

STOKVIS
ENERGY SYSTEMS

ECONOBOOST

COMPACT COLD WATER BOOSTER SET

ECONOBOOST

EB II & EB III Compact Water Booster

The Stokvis EB II twin pump & EB III triple pump cold water booster units meet today's need for compact, reliable, high performance equipment with modest capital outlay and low running costs.

Both units incorporate well proven high specification components, in conjunction with compact horizontal multistage pumps and a high specification control panel.

Type EB II & EB III units comprise two or three quiet running fixed speed pumps, together with a diaphragm vessel. All mounted on a steel base plate, pre-piped and pre-wired to the unit control panel forming a fully packaged unit.

Applications

Water supply for :-

- **Residential**
- **Offices**
- **Factories**
- **Hospitals**
- **Nursing Homes**
- **Hotels**
- **Leisure complexes**
- **Supermarkets**
- **Shopping Centres**
- **Schools**
- **Universities**
- **Agricultural**
- **Horticultural**
- **Irrigation**

Design Features

- **Compact design**
- **Quiet / Smooth operation**
- **Wide performance range, extended by duty/assist operation**
- **Easy installation and minimal maintenance requirements**
- **Quality controlled manufacturing and material standards ensure optimum performance and long life**
- **Economic capital / running costs**
- **Water Bye law compliance**
- **CE marked**

ECONOBOOST EB II & EB III Standard Specification

Pumps - High efficiency, quiet running, horizontal, multistage design with TEFC motors having class 'F' insulation and sealed for life bearings. Suitable for single or three phase supply.
Type MS - Cast Iron body with stainless steel shaft and impellers (IP44 motor).
Type SS - All stainless steel construction (IP55 motor).

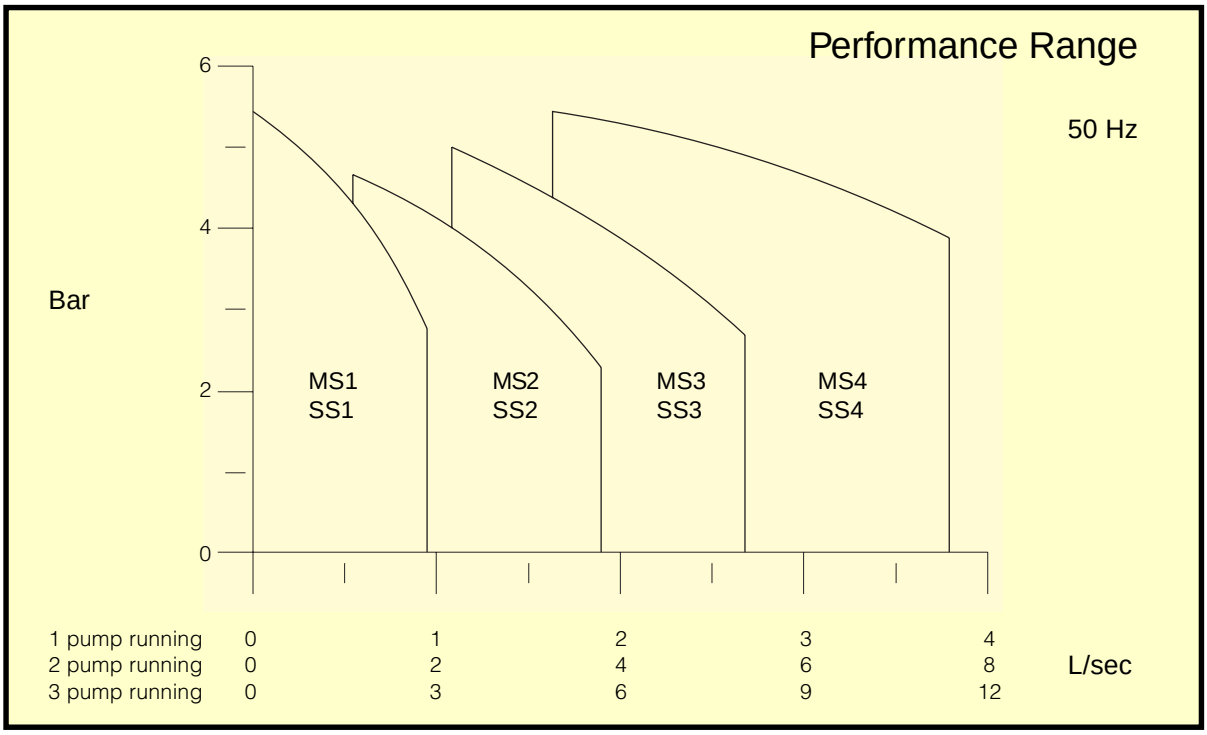
Control Panel - designed to meet IEE wiring regulations current Edition.
Single compartment heavy gauge steel enclosure to IP55 with door Interlocked 4 pole mains isolator.
Individual direct-on-line motor starters with thermal overload relays (with single phasing protection for 3 phase units).
Minimum run timer for each pump.
Automatic duty sequence share facility.
Individual pump and control circuit fuses (HRC to BS88) in fully shrouded fuse holders.
Mains on indicating lamp (Neon).
Run / trip indicating lamps (Neon) each pump.
Panel anti condensation heater (export units).
Special disconnect link terminals are provided to inhibit pump and auto duty change operation.
External identification and warning labels.
Terminals and gland plate for external connections.
Wiring in stranded PVC cable fitted with ferrules and identification numbers, run in slotted trunking.

Diaphragm Vessel
(WRC listed), pressed steel welded shell with food quality, removable, butyl rubber diaphragm. Fitted with Schrader valve, isolating valve and drain cock.

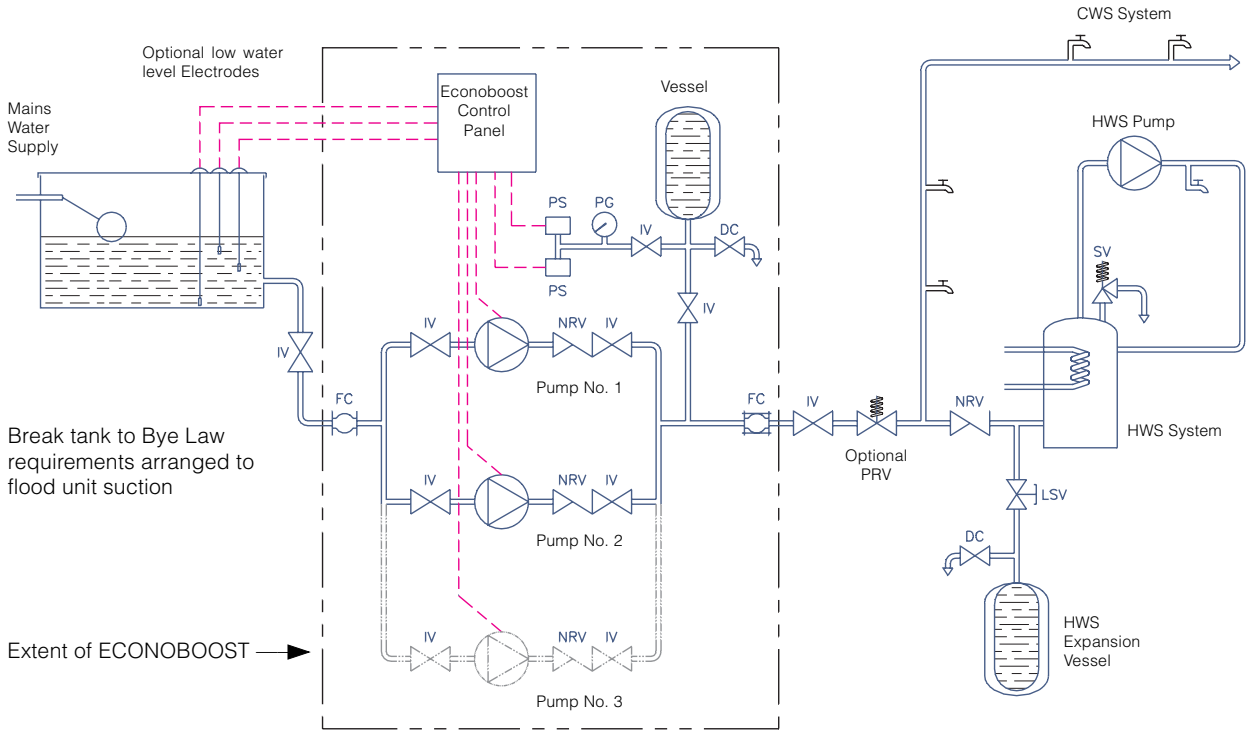
Unit Base plate - Heavy gauge zinc plated steel. All fasteners ISO metric threads, zinc plated.

Valves & Pipework - Isolating valves (each pump inlet and outlet) dezincification resistant copper alloy screwed gate valves BS5154 series B or dezincification resistant full bore ball valves rating PN20.
Non return valves (each pump outlet) - Gunmetal, non concussive type resilient seating.
Inlet and delivery manifolds with branches to each pump and vessel. Either Galvanised mild steel to BS1387 with BSP female termination or Copper tube to BS2871 Table 'X' female tube socket terminations.

Pressure Gauge & Switches - A 100mm diameter direct mounted pressure gauge to BS 1780 Class 1 indicates discharge pressure in bar and PSIG. Two heavy duty diaphragm type pressure switches with copper alloy media contact parts, adjustable range, mounted on a common header complete with isolating valve.
Refer to separate data sheet for electrical details and noise levels.



Typical Boosted Water Supply System



Key
FC = Optional flexible pipework connections.
IV = Isolating valve
NRV = Non return valve
PS = Pressure switch
PG = Pressure gauge
DC = Drain cock
PRV = Pressure reducing valve
LSV = Lock shield valve
SV = Safety valve

EB II = Twin pump unit
EB III = Triple pump unit

Unit Operation

Draw off of water from the system is initially supplied from the vessel, the resulting fall in pressure being sensed by the pressure controls. When the pressure has fallen to the nominal system pressure the duty pump is started.

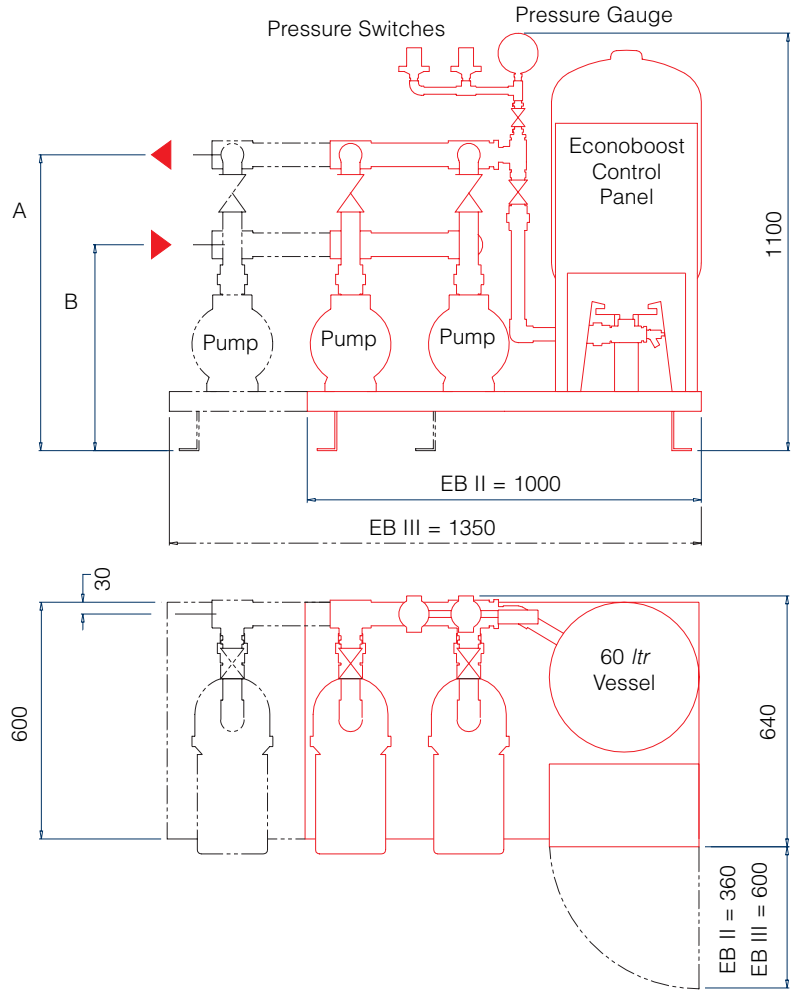
Water is pumped to the distribution system and at the same time into the vessel causing the gas to be compressed and the pressure to rise.
When pressure has risen to the cut-out point (which is selected to suit pump and system characteristics) the pump stops.

As long as the demand for water continues the cycle repeats, however should the demand exceed that which can be fulfilled by the duty pump, pressure will fall causing the second pump to start which then supplies the system and creates a pressure rise, this sequence repeats for the third pump (if fitted), thus providing automatic operation of the assist/standby pump(s).

When pressure has risen to the cut-out point, the pumps are stopped in sequence, providing the minimum run time has elapsed.

Units incorporate automatic duty sharing as standard where the pump sequence is rotated after each run.
To avoid excessive pump and control gear wear, these units incorporate minimum run timers in the control system to limit the starting frequency. This results in the pump closed valve pressure (plus any inlet pressure) being applied to the system during low demand periods; all components in the distribution system must therefore be selected with this in mind.

Stokvis Econoboost Compact Water Booster Range



Size	Dimension A mm	Dimension B mm	Termination Cu mm	Termination Galv inches	Weight Dry kg	Weight Max kg
EB II - Twin pump unit						
Pump Size						
MS/SS1	660	445	35	1¼"	100	175
MS/SS2	660	480	42	1½	110	190
MS/SS3	725	525	54	2"	135	220
MS/SS4	725	525	54	2"	140	225
EB III - Triple pump unit						
Pump Size						
MS/SS1	660	485	35	1¼"	135	210
MS/SS2	700	510	42	1½"	145	225
MS/SS3	725	525	54*	2"*	185	270
MS/SS4	725	525	54*	2"*	190	275

Note: * For flow rates above 7.0 litre per second connection size is 67mm / 2½"

Optional Extras

- **Low water pump cut off and warning lamp complete with electrodes or pressure switch control.**
- **Two way selector switch for low water cut off (where twin suction tanks are used) complete with 3 additional electrodes.**
- **Volt free BMS monitoring contacts for run / trip / low water indication.**
- **Resilient mountings.**
- **Flexible pipework bellows connections.**
- **Pressure reducing valves to enable constant supply pressure to be maintained.**
- **Individual vessel hydraulic test certificate, available by pre-order request.**

STOKVIS Energy Systems
maintenance and after sales service

You can be sure that your new Stokvis product is the very best of its type in design, materials and construction. However to obtain the maximum benefits from your quality product, it is essential that it is maintained at maximum efficiency throughout its long working life.
For this reason, STOKVIS Energy Systems provides full UK cover with factory trained engineers to offer you a total service opportunity throughout the year.
This ensures that your equipment can be checked, serviced and, if necessary, adjusted to ensure maximum energy saving performance. Also, in the unlikely event of a breakdown, repairs can be tackled speedily and cost effectively – wherever you are in the UK. Just phone, fax or e-mail STOKVIS Energy Systems for prompt professional attention to your needs.

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Ventilating Systems
•
Steel Panel and Low
Temperature Radiators
•
Packaged Plant Rooms
•

The company

Since the early 1980's , STOKVIS Energy Systems has been acknowledged as the vanguard in it's field for both quality of products and customer service.
It is our dedicated objective to continue to excel at providing you our customers and partners with both the products and services you need in these most demanding and dynamic times both now and into the future.

CE

Ivan Thompson
Managing Director

STOKVIS
ENERGY SYSTEMS

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